

ABSTRACT OF THE DISCLOSURE

A method of manufacturing a semiconductor device including a first step of depositing a first film and a second
5 film on a conductive layer in this order and etching a desired portion of the second film with a first etching gas until the first film is exposed, the first film being made of one of a silicon
nitride film and a silicon nitride oxide film, the second film
being made of a silicon oxide film, a second step of removing a
10 reaction product deposited on the first film through the first step with a second etching gas to expose the first film, a third step of etching the first film exposed through the second step with a third etching gas until the conductive layer is exposed
and a fourth step of removing a reaction product deposited on
15 the conductive layer through the third step with a fourth etching gas, thereby forming a concave portion penetrating the first and second films to reach the conductive layer surface.